

REMARKS

The last Office Action of March 6, 2006 has been carefully considered. Reconsideration of the instant application in view of the foregoing amendments and the following remarks is respectfully requested.

Claims 1-28 are pending in the application. Claims 1, 12, 14, 20, and 28 have been amended. No claims have been canceled or added. No amendment to the specification has been made. No fee is due.

Claims 1-11 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Pat. No. 5,129,806 to Hehl (hereinafter "Hehl '806").

Claims 12-18 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Pat. No. 5,547,366 to Hehl (hereinafter "Hehl '366").

Claims 19 and 28 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Pat. No. 4,443,179 to Wohlrab.

Claims 20-28 stand rejected under 35 U.S.C. §102(b) as being anticipated by Hehl '806.

REJECTION OF CLAIMS 1-11 UNDER 35 U.S.C. §102(b) AS BEING ANTICIPATED BY HEHL '806

In order to clearly set forth the features of the present invention and to more clearly distinguish the present invention from Hehl '806, applicant has amended claim 1 by A) specifically setting forth the configuration of the secondary piston (7) as a boundary or demarcation of the pressure space (6) in the cylinder (1), and B) positively reciting the contacting relationship between the surfaces of the primary and secondary pistons, when the half-molds are clamped.

Support for the addition A) can be found, for example, in Figs. 1 to 3, which show that the secondary piston (7) defines or bounds one side of the pressure space (6), irrespective of the axial disposition of the secondary piston.

Support for the addition B) can be found in the instant specification, for example, in Figs. 2 and 3, and accompanying paragraphs [0036] and [0038] ("so that the secondary piston 7 and the primary piston 2 are firmly pressed with their contact surfaces 40 and 41 against one another in a hydraulically tight manner.").

Hehl '806 discloses a hydraulic system in an injection molding machine, whereby the Examiner equates the piston (25) with the primary piston of the invention, and the annular piston (43) with the secondary piston of the invention. The annular piston (43) is axially movable in a cylinder (20) to control a flow of fluid between a low-pressure chamber (50) and a high-pressure chamber (52). The Examiner interprets the high-pressure chamber (52) to be equivalent to the first pressure space of the invention. It is clear from the drawings in Hehl '806 that the annular piston (43) seals off the high-pressure chamber only in one axial disposition, namely when the passage between the chambers is blocked. Thus, Hehl '806 fails to disclose the provision of a secondary piston that forms a boundary of the pressure space, regardless which axial position the secondary piston assumes at any time.

Moreover, Hehl '806 fails to disclose a "floating" disposition of the piston (25) in the pressure chamber (52). While the primary piston of the invention is received in the pressure space at a distance to the surrounding cylinder wall to establish the floating disposition (see Fig. 1), the piston (25) in Hehl '806 **defines** two cylinder chambers (see col. 4, lines 9, 10). In other words, the piston (25) is sized to demarcate the pressure chamber. This is not a "floating" arrangement.

For the reasons set forth above, it is applicant's contention that Hehl '806 neither teaches nor suggests the features of the present invention, as recited in claim 1.

As for the rejection of the dependent claims 2-11, these claims depend on claim 1, share its presumably allowable features, and therefore it is respectfully submitted that these claims should also be allowed.

Withdrawal of the rejection of claims 1-11 under 35 U.S.C. §102(b) is thus respectfully requested.

**REJECTION OF CLAIMS 12-18 UNDER 35 U.S.C. §102(b) AS BEING
ANTICIPATED BY HEHL '366**

In order to clearly set forth the features of the present invention and to more clearly distinguish the present invention from Hehl '366, applicant has amended claim 12 by A) specifically setting forth the configuration of the secondary piston (7) as a boundary or demarcation of the pressure space (6) in the cylinder (1), and B) positively reciting the contacting relationship between the surfaces of the primary and secondary pistons, when the fixed and moving platens are clamped.

Support for the additions A) and B) can be found as outlined *supra*.

Hehl '366 discloses a mold closing unit having an annular piston (36) and a pressure piston (14a). The attempt by the Examiner to equate the primary piston of the present invention with the annular piston (36) must fail because of the absence of a piston rod. Claim 12 on file clearly sets forth the presence of "**a primary piston *which includes at least one piston rod***" [emphasis added]. If, for sake of argumentation, the secondary piston of the invention were to be equated with the annular piston (36) of Hehl '366, then Hehl '366, like Hehl '806 as discussed *supra*, fails to disclose a secondary piston that forms a boundary of the pressure space at any axial disposition of the secondary piston.

For the reasons set forth above, it is applicant's contention that Hehl '366 neither teaches nor suggests the features of the present invention, as recited in claim 12.

As for the rejection of the dependent claims 13-18, these claims depend on claim 12, share its presumably allowable features, and therefore it is respectfully submitted that these claims should also be allowed.

Withdrawal of the rejection of claims 12-18 under 35 U.S.C. §102(b) is thus respectfully requested.

**REJECTION OF CLAIMS 19, 28 UNDER 35 U.S.C. §102(b) AS BEING
ANTICIPATED BY WOHLRAB**

In order to clearly set forth the features of the present invention and to more clearly distinguish the present invention from Wohlrab, applicant has amended claim 28 by A) specifically setting forth the configuration of the secondary piston (7) as a boundary or demarcation of the pressure space (6) in the cylinder (1), and B) positively reciting the contacting relationship between the surfaces of the primary and secondary pistons, when the fixed and moving platens are clamped.

Support for the additions A) and B) can be found as outlined *supra*.

Wohlrab discloses a rapid-action closer having a piston (13) and a piston (6), whereby the Examiner equates the piston (13) with the primary piston of the invention, and the piston (6) with the secondary piston of the invention. The Examiner contended that the pistons (13) and (6) "*can be brought to impact one another (figure 1, column 3, lines 25-35)*". Applicant respectfully disagrees. Claim 28, as now on file, sets forth the contact between the confronting surfaces of the primary and secondary pistons, when the mold is closed (see also paragraph [0050] of the instant specification). Col. 3, lines 25-35 in Wohlrab merely describes the presence of a piston face (15) of the piston (13) and a rear face (36) of the piston (6). No contacting between these faces is described. In fact, Wohlrab teaches away from the subject matter of claim 28, by describing that these faces are moved apart when the mold is closed. Col. 4, lines 25-27 describes in the context of closing the mold (col. 4, lines 10-31) the following:

The face 36 being larger than the face 15, this pressure will move
the piston 6 rapidly forwardly.

In other words, when the mold is closed, the face 36 is moved **away** from the rear face of the piston (13) in order to move the plate (1) forwardly or to the right as seen in the drawing (col. 4, lines 10, 11).

For the reasons set forth above, it is applicant's contention that Wohlrab neither teaches nor suggests the features of the present invention, as recited in claim 28.

As for the rejection of the dependent claim 19, this claim depends on claim 28, shares its presumably allowable features, and therefore it is respectfully submitted that claim 19 should also be allowed.

Withdrawal of the rejection of claims 19, 28 under 35 U.S.C. §102(b) is thus respectfully requested.

REJECTION OF CLAIMS 20-28 UNDER 35 U.S.C. §102(b) AS BEING ANTICIPATED BY HEHL '806

Independent claim 28 has been discussed *supra* and includes the same claim limitations as claim 1 which, as discussed *supra*, is distinguishable over Hehl '806. Therefore, claim 28 is patentable over Hehl '806 in a same manner as claim 1.

For the reasons set forth above, it is applicant's contention that Hehl '806 neither teaches nor suggests the features of the present invention, as recited in claim 28.

As for the rejection of the dependent claims 20-27, these claims depend on claim 1, share its presumably allowable features, and therefore it is respectfully submitted that these claims should also be allowed.

Withdrawal of the rejection of claims 20-28 under 35 U.S.C. §102(b) is thus respectfully requested.

CLARIFICATION AMENDMENT

Applicant has amended claims 14 and 20 to remove reference numerals in the claims. These changes are self-explanatory and cosmetic in nature.

CONCLUSION

Applicant believes that when reconsidering the claims in the light of the above comments, the Examiner will agree that the invention is in no way properly met or anticipated or even suggested by any of the references however they are considered.

In view of the above presented remarks and amendments, it is respectfully submitted that all claims on file should be considered patentably differentiated over the art and should be allowed.

Reconsideration and allowance of the present application are respectfully requested.

Should the Examiner consider necessary or desirable any formal changes anywhere in the specification, claims and/or drawing, then it is respectfully requested that such changes be made by Examiner's Amendment, if the Examiner feels this would facilitate passage of the case to issuance. If the Examiner feels that it might be helpful in advancing this case by calling the undersigned, applicant would greatly appreciate such a telephone interview.

Respectfully submitted,

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